What is claimed is:

1. Monoclonal antibody 4G9 produced by hybridoma 4G9, deposited with the American Type Culture Collection (ATCC) and assigned Accession Number CRL 11626, or an antigen binding fragment thereof reactive with in vivo produced advanced glycosylation endproducts (AGEs).

2. The monoclonal antibody or antigen binding fragment thereof of claim 1, which specifically binds to serum-AGE proteins, serum-AGE lipids, serum-AGE peptides, LDL-AGE, Hb-AGE, or collagen-AGE.

3. A humanized or chimetic human-murine antibody of the monoclonal antibody of claim 1.

4. The antigen-binding fragment of the monoclonal antibody of claim 1, selected from the group consisting of a single chain Fv fragment, an F(ab') fragment, an F(ab) fragment, and an $F(ab')_2$ fragment.

5. The monoclonal antibody or fragment thereof of claim 1 which is a murine IgG isotype antibody.

6. A labeled antibody wherein the antibody is the antibody of claim 1.

7. A hybridoma deposited with the American Type Culture Collection (ATCC) and assigned Accession Number CRL 11626.

8. A pharmaceutical composition containing an anti-AGE antibody in combination with a pharmaceutically acceptable carrier; wherein said anti-AGE antibody is the monoclonal antibody in accordance with any of claims 1-3 or 4.

9. A monoclonal antibody, or an antigen binding fragment thereof reactive with in vivo produced advanced glycosylation endproducts (AGEs), wherein antigen binding by the antibody or fragment is competed by lysine or 6-aminocaproic acid browned with

glucose with an IC_{50} of 5 X 10^{-4} M or less, wherein the concentration of browned lysine or 6-aminocaproic acid is with respect to the lysine or 6-aminocaproic acid subjected to the browning reaction.

10. The monoclonal antibody of claim 9, wherein antigen binding by the antibody or fragment is competed by 6-aminocaproic acid browned with glucose with an IC_{50} of 5 X 10^{-4} M or less.

11. The monoclonal antibody or antigen binding fragment thereof of claim 9, which specifically binds to serum-AGE proteins, serum-AGE lipids, serum-AGE peptides, LDL-AGE, Hb-AGE, or collagen-AGE.

12. A humanized or chimetic human-murine antibody of the monoclonal antibody of claim 9.

13. The antigen-binding fragment of the monoclonal antibody of claim 9, selected from the group consisting of a single chain Fv fragment, an F(ab') fragment, an F(ab) fragment, and an $F(ab')_2$ fragment.

14. The monoclonal antibody or fragment thereof of claim 9, which is a murine IgG isotype antibody.

15. A labeled antibody wherein the antibody is the antibody of claim 9.

16. A pharmaceutical composition containing an anti-AGE antibody in combination with a pharmaceutically acceptable carrier; wherein said anti-AGE antibody is the monoclonal antibody in accordance with any of claims 9-12 or 13.